BLACK BRANT (*Branta bernicla nigricans*)

Criteria Scores

Population Trend	Range Trend	Population Size	Range Size	Endemism	Population Concentration	Threats
10	0	2.5	10	0	5	10

Special Concern Priority

Currently considered a Bird Species of Special Concern, Priority 3. Not included on either the original prioritized list (Remsen 1978) or on CDFG's (1992) unprioritized list.

Breeding Bird Survey Statistics for California

Does not breed in California.

General Range and Abundance

Three subspecies are generally recognized (Reed et al. 1998), the Old World *B. b. bernicla*, breeding in central arctic Russia and wintering in northwestern Europe; *B. b. hrota,* breeding primarily in central to eastern Arctic Canada and Greenland, and wintering on the east coast of the United States and Ireland; and *B. b. nigricans*, the Black Brant of this account, breeding in the central and western low Canadian Arctic, Alaska, and eastern Russia, and wintering along the Pacific coast, primarily in Mexico (Reed et al. 1998). Del Hoyo et. al (1992) recognize a fourth subspecies, *B. b. orientalis*, nesting in extreme eastern Siberia. The population wintering on the North American Pacific Coast averaged 136,100 from 1971-1980; 138,300 from1981 to 1990; and 133,300 from 1991 to 2000 (Pacific Flyway Council 2002).

Seasonal Status in California

Occurs as a fall migrant and winter visitor, becoming an abundant spring migrant. Present from October to April, with some individuals lingering into the summer.

Historical Range and Abundance in California

Grinnell and Miller (1944) considered Black Brant a winter visitant, October through April, still abundant locally, though "doubtless somewhat more abundant originally than now." They used the entire seacoast in migration, but concentrated in bays, such as Humboldt, Bodega, Tomales, Drakes, Morro, Mission, and San Diego. They were no longer using San Francisco or San Pedro bays at the time of publication. CDFG conducted censuses of brant in the 1930s and 1940s (e.g. Moffitt 1931), primarily during the northward migration, January through March. No regular surveys were conducted to estimate the winter population of this goose prior to 1951, but surveys conducted during the 1950s and 1960s often continued to count birds in February and March when brant were on their northward migration, and thus do not represent the true wintering population (Pacific Flyway Council 2002). However, numbers of brant counted during these time periods were higher than those counted in recent times.

Recent Range and Abundance in California

The current range of the Black Brant is essentially the same as that at the time of publication of Grinnell and Miller (1944), with the exception that use of Mission and San Diego bays is now very light. Due to the inconsistent timing of surveys prior to 1960 and an inability to differentiate between wintering brant and migrants, an accurate assessment of long-term trends in both the wintering and migratory brant population in California is impossible (Pacific Flyway Council 2002). Peak counts of spring staging brant at Humboldt Bay were 20,000-40,000 from 1950-77, declined to 10,000-15,000 in the 1980s, but have increased to 20-25,000 in the late 1990s. Population trends at other California sites are thought to be proportionally similar to that observed at Humboldt Bay (Pacific Flyway Council 2002).

Ecological Requirements

This goose is strictly maritime during the non-breeding season, congregating on larger bays, especially where plentiful growths of eelgrass (*Zostera marina*) are available for food. Most activity takes place on the water, although they rest along shore lines as well as on the water

(Grinnell and Miller 1944). Foods away from the breeding areas are almost exclusively eelgrass, wigeongrass (*Ruppia maritima*), and sea lettuce (*Ulva* sp.) (Einarsen 1965).

Threats

Recent studies have indicated that brant numbers are highly correlated with eelgrass availability and abundance (Wilson and Atkinson 1995). Consequently, threats to the supply of eelgrass are of concern. Oyster culture in Humboldt Bay constitutes one such threat. CDFG is involved in efforts to reduce or eliminate the threat to brant (from loss of foraging opportunity) and to the eelgrass beds from such activities (K. Kovacs, pers. comm.). Disturbance, especially from boating, can have a negative effect on the ability of brant to build up energy reserves for migration and breeding (Henry 1980). Concerns for this kind of disturbance currently exist for Morro Bay especially (J. Roser, pers. comm.), though survey data indicates an increase in brant use of Morro Bay in recent years. Hunting is not a major threat. Due to changes in the timing and length of season, and the bag limit, statewide harvest of brant has decreased from an annual average of 3700 in the 1970s to an average since 1983 of about 500 birds annually (Pacific Flyway Council 2002).

Management and Research Recommendations

A management plan for the Pacific population of Black Brant currently exists (Pacific Flyway Council 2002). This plan contains a complete list of management strategies and research recommendations, the most important of which are to 1) continue to develop more accurate methods of monitoring population levels; 2) monitor harvest levels; and 3) protect critical habitats. This latter strategy involves pursuing mitigation for impacts, including loss or degradation of eelgrass beds, grit, and loafing sites; disturbance of wintering and staging flocks; and exclusion of brant from traditional use sites.

Monitoring Needs

The mid-winter survey conducted by state and federal management agencies has unquantified sources of variation (survey timing, climatic events, etc.) which need to be addressed. Since most brant use in California comes during spring migration, monitoring of major use areas such as Morro, Tomales, and Humboldt bays should be instituted or continued, and evaluated to determine the effects of human disturbance on these populations.

Acknowledgments

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